What Is Claimed Is:

1. A liquid crystal display device comprising:

a first substrate;

a second substrate facing the first substrate, a space for housing liquid crystal molecules being formed between the first substrate and the second substrate;

a plurality of liquid crystal molecules formed in the space in a predetermined arrangement;

a first electrode with a first end, formed on the first substrate; and

a second electrode with a second end, formed on the first substrate, a discharge gap being formed between the first end and the second end;

wherein when an external voltage is applied between the first and the second electrodes, an electrical field is generated to change the arrangement of the liquid crystal molecules.

2. The liquid crystal display device of claim 1, wherein the predetermined arrangement of the liquid crystal molecules is in a vertical alignment, each liquid crystal molecule has a longitudinal axe, and the longitudinal axe is substantially perpendicular to the first substrate.

3. The liquid crystal display device of claim 1, wherein the predetermined arrangement of the liquid crystal molecules is in a vertical alignment, each liquid

crystal molecule has a longitudinal axe, the longitudinal axe is substantially perpendicular to the second substrate.

4. The liquid crystal display device of claim 1, wherein the predetermined arrangement of the liquid crystal molecules is in a horizontal alignment, each liquid crystal molecule has a longitudinal axe, and the longitudinal axe is substantially parallel to the first substrate and perpendicular to a line formed by the first end and the second end.

5. The liquid crystal display device of claim 1, wherein the predetermined arrangement of the liquid crystal molecules is in a horizontal alignment, each liquid crystal molecules has a longitudinal axe, and the longitudinal axe is substantially parallel to the second substrate and perpendicular to a line formed between the first end and the second end.

6. The liquid crystal display device of claim 1, wherein a line is formed between the first end and the second end, and the first electrode is symmetrical to the second electrode by the line.

7. The liquid crystal display device of claim 1, wherein the display cell comprises a plurality of electrode pairs with an end-to-end arrangement, and the electrode pairs are parallel to each other.